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INFORMATION REPORT

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PREPARED AND DISSEMINATED BY

CENTRAL INTELLIGENCE AGENCY

COUNTRY Hungary

SUBJECT Universal Time Fuze for All Bombs

DATE DISTRIBUTED 4 June 1957

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THIS IS UNEVALUATED INFORMATION

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1. [redacted] class in demolition and explosives was taught that a new universal fuze had been developed by the Soviets.

2. [redacted] first work with this fuze was in a bomb drop experiment. The bomb was dropped from a 25 meter tower with the fuze inserted. The bombs used were 500 pounds and upon release from the tower were accelerated by powder charges to simulate an actual air drop. In one test the fuze was set for 30 seconds and the release delayed for 29 seconds to test the effects of an air burst. In other tests, the bombs were allowed to penetrate the ground.

3. Details of this universal time fuze are shown on a sketch [redacted] as follows:

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(1) Arming vane.

(2) Retaining ball.

(3) Arming pin.

(4) Arming spring.

(5) Clock hand and firing pin.

(6) Releasing template.

(7) Ignition charge.

(8) Bridge for holding clock hand.

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(9) Lower fuze case section.

(10) Upper fuze case section.

(11) Timing ring -- copper, time adjustable from one second to 180 seconds, by seconds. A different clock mechanism and timing ring can be used for longer delays. This one has a range of time delay from one minute to 36 hours, adjustable by minutes. These mechanisms are extremely reliable.

(12) Safety pin hole.

(13) Clock mechanism.

4. Method of Operation: Fuzes are inserted into bomb, then desired delay is set in fuze by turning band clockwise (to the right). If the timer ring is initially turned to the left, regardless of subsequent operation it will detonate immediately upon removal of the vane (as soon as it is armed). Safety pins are not removed until the aircraft is airborne and so this would be an ideal method of sabotage. These fuzes are utilized in the tail of all delay bombs and are used by both the Soviets and the Satellites. Once the safety pin is removed and the bomb dropped, the arming vane spins off allowing the retaining ball to drop out and the arming pin (3) to retract. This allows the clock hand to start its rotation. When its position coincides with the template (which has been previously positioned by rotation of the timer ring), it falls through and ignites the charge.

5. Production: Fuses are manufactured only in the USSR by the THLE factory, a clock manufacturing concern. The factory name is stamped on the fuze.

6. The same type of fuze is used for anti-aircraft shells. It is adapted for use in the 88mm AAA shell by replacing the vane mechanism with a spring loaded nose. When the shell is fired, air pressure depresses the nose, allowing the ball to drop out, arming the mechanism. 25X1

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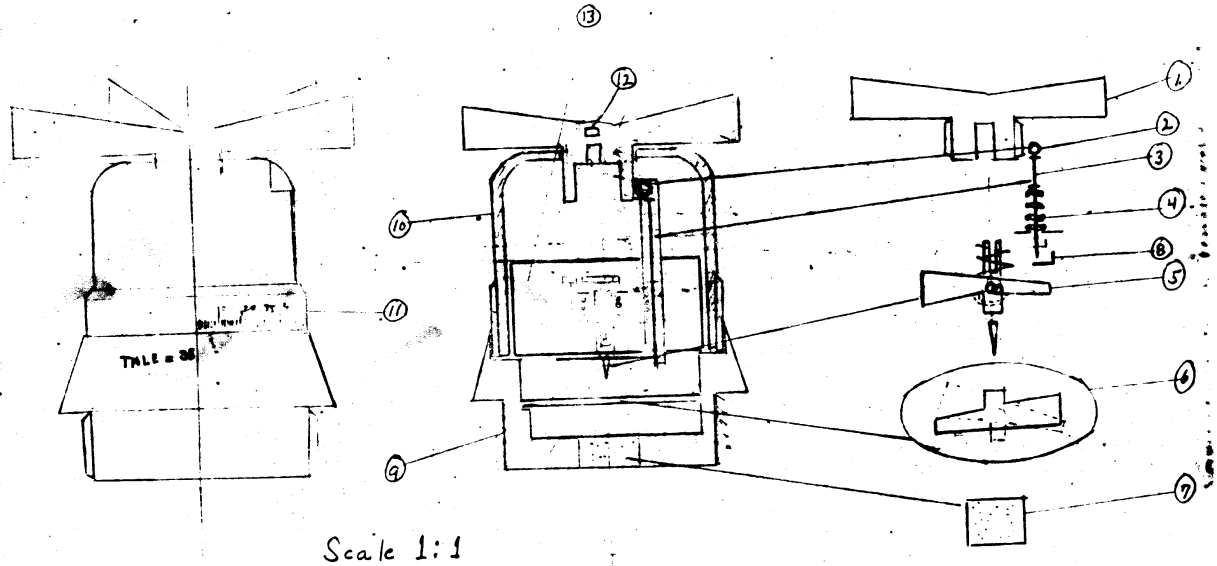

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Sketch of Universal Time Fuze for AP Bombs

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